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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/297,256	04/28/1999	GORAN SUNDHOLM	U012229-2	9504

7590

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EXAMINER

KIM, CHRISTOPHER S

ART UNIT

PAPER NUMBER

3752

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/297,256

Applicant(s)

SUNDHOLM, GORAN

Examiner

Christopher S. Kim

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Amendment filed October 15, 2002 is acknowledged.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the clean version and the marked-up version are inconsistent. It is uncertain which version is an accurate reflection of applicant's intention. See claim 1 line 6.

Regarding claim 11, the term "mist-like" renders the claim indefinite because the metes and bounds of the claim cannot be determined.

Claim Rejections - 35 USC § 102

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Naumann (3,613,794).

Naumann discloses a fire fighting apparatus comprising: a plurality of spray heads 25; a tube system 13; a first drive gas source 15, 17; and release means 27.

Claim Rejections - 35 USC § 103

5. Claims 1-7 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diquattro (3,012,613) in view of Lockwood (3,827,502).

With respect to claims 1, 11, 13 and 14, Diquattro discloses a fire fighting apparatus comprising: a plurality of spray heads 1-8; a tube system 16a-c, 12, 14, 18; a first drive gas source 10; a release means 28. Diquattro discloses, in figure 1, by way of example (column 2, lines 40-41), receptacles 16a-c being cylinder-like and varying the size and capacity to meet various combinations of requirements (column 3, lines 48-51). Lockwood teaches a tube shape in figure 1 and a cylinder shape in figure 2 for changing the capacity of extinguishant (column 3, lines 29-32). Lockwood also teaches various lengths of tubing in figures 3-5. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have shaped the receptacles of Diquattro into a tube shape of appropriate length as taught by Lockwood to meet various operating requirements (Diquattro, column 3, lines 50-52).

With respect to claims 2, 4, 6, 7, Diquattro in view of Lockwood discloses the limitations of the claimed invention with the exception of the plurality of drive gas sources. Providing a plurality of drive gas sources is a mere duplication of parts. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a plurality of drive gas sources in the device of Diquattro in view of Lockwood for redundancy and backup.

With respect to claim 3, Diquattro further discloses a stop/opening valve 15.

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With respect to claim 5, Diquattro further discloses, in column 2, lines 26-28, nitrogen at 3000 psi (206.85 bar) as an example of gas in drive gas source 10.

With respect to claims 9 and 10, Diquattro in view of Lockwood discloses the limitations of the claimed invention with the exception of a tunnel. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used the device of Diquattro in view of Lockwood in a tunnel to prevent fires in a tunnel.

With respect to claim 12, Diquattro in view of Lockwood discloses the limitations of the claimed invention with the exception of the water-based liquid. Water is well known in the art for use in fire fighting. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used water as coolant in the device of Diquattro in view of Lockwood to reduce cost since water is readily available.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diquattro (3,012,613) in view of Lockwood (3,827,502) as applied to claim 7 above, and further in view of Willms (4,082,148).

Diquattro in view of Lockwood discloses the limitations of the claimed invention with the exception of the solenoid valve. Willms discloses a fire fighting apparatus with zone 1 and zone 2 each zone having a release means 20, 20A and solenoid valve 17, 17A. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have replaced the release means of Diquattro in the device of Diquattro in view of Lockwood with the release means and solenoid valve of Willms to automate the device.

Response to Arguments

7. Applicant's arguments filed June 24, 2002 have been fully considered but they are not persuasive.

In response to applicant's argument that "mist" is well understood, the indefiniteness is directed to the term "mist-like" and not "mist" alone.

In response to applicant's argument that Diquattro does not disclose an extinguishing medium source is a tube, Lockwood teaches to elongate the tube for change in capacity and location. Diquattro discloses, in figure 1, by way of example (column 2, lines 40-41), receptacles 16a-c being cylinder-like and varying the size and capacity to meet various combinations of requirements (column 3, lines 48-51). Lockwood teaches a tube shape in figure 1 and a cylinder shape in figure 2 for changing the capacity of extinguishant (column 3, lines 29-32). Lockwood also teaches various lengths of tubing in figures 3-5. Elongating receptacles 16a-c constitutes a long tube.

In response to applicant's request for detail for claims 13 and 14, providing a particular range of length of the tube is a mere optimization of conditions.

In response to applicant's argument that item 13 of Naumann contains a bore 21 and radial bores but item 13 is not a tube, bore 21 (and as much of item 13 as necessary) constitutes the tube of tube system 13.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (703) 308-8336. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry C. Yuen can be reached on (703) 308-1946. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7766 for regular communications and (703) 308-7766 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

CK
January 10, 2003



CHRISTOPHER KIM
PATENT EXAMINER